

VARIATION IN *EUPHYDRYAS CYNTHIA* (D. & S.) IN THE ALPES MARITIME, SOUTHERN FRANCE

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ABSTRACT

Several unusual variations of the fritillary *Euphydryas cynthia* collected in the Alpes Maritime were referred to, but not illustrated in the Presidential Address given by the author to the Society in 1952. A colour plate of these butterflies, kindly prepared by the National Museums of Scotland where the specimens are now stored, is reproduced below.

BACKGROUND

A little over half a century ago I was asked to collect some alpine species of Rhopalocera in the Alpes Maritime, southern France for a Mr A. Simmons of Southwell, Nottinghamshire. I visited St Martin Vesubie in 1950 and again in the following year when I was President of this Society. I gave an account of my two visits in my Presidential Address in 1952 but due to adverse circumstances I was not able to illustrate in colour some of the remarkable aberrations of the fritillary *Euphydryas cynthia* (D. & S.) that I was fortunate to encounter on my first visit. I had always wanted to have a photographic record of these individuals and then I learnt that Mr Simmons had bequeathed his collection to the National Museums of Scotland, Edinburgh. I subsequently contacted Dr Mark Shaw to see if it would be possible to have a photograph taken of some of the specimens and I am very pleased due to his kindness to have a portrait of them at last (Plate 11).

Further details of the conditions under which the specimens were collected are provided in the original address which is quoted below:

“I searched in vain for *Euphydryas cynthia* for several days but finally located it near the Col already mentioned at about 7000 ft. This attractive “Fritillary”, which resembles *E. aurinea* Rott. in its female, is much more sexually dimorphic than our British species in having a beautiful brown, black and white barred male. On climbing higher a day or so later I found the butterfly in hundreds. The sexes were equally common and in the high wind and during cloudy weather it was easy to find pairs *in copula* and at rest in the grass tufts. These tufts were to become the object of my searches for I was fortunate in taking an extreme aberration on one of my first visits. As one would imagine, *cynthia* varies in much the same manner as does *aurinea* and it was with great excitement that I boxed this ♀ aberration. It has many of the black spots coalescing on the upper surface and on the undersurface of the hindwings has the whitish submarginal spots radiating inwards and replacing the usual yellowish ground colour as far as the discal area, which is a plain reddish brown. I took four or five of this type of aberration and one with all the black markings replaced by a beautiful dove grey giving this insect a faint resemblance to a photographic negative. The males varied little compared with the females, and mostly towards a reduction or enlargement of the white markings on the upper surface of the wings. Due to the lateness of the season and the appalling weather conditions prevailing in 1951, larvae of this species were to be found commonly only half grown where the butterflies would have been emerging in the preceding year.



PLATE 11. Females of *Euphydryas cynthia* showing variation within a population on Mt Balme de la Frema, La Colmiane, St Martin Vesubie, Alpes Maritime, southern France 7,000 feet, late June to July 1950 & 1951. Ex collection of A. Simmons. Reproduced by kind permission of the Trustees of the National Museums of Scotland.

They feed on *Plantago alpina* L. a small plant with little tufts of spiky leaves which up here only grows about an inch high, but lower down grows much more luxuriantly with leaves nearly six inches long."

REFERENCE

- Howarth, T. G. 1952. The 1952 Presidential Address—Part 2. Collecting Lepidoptera in the South of France 1950 and 1951. *Proceedings of the South London Entomological & Natural History Society* 1952–53: 52–65.